

SGCN and Habitat Stressors

Level 1 Threat Climate Change and Severe Weather

Level 2 Threat: Storms and Flooding

Description: Extreme precipitation and/or wind events

Species Associated With This Stressor:

Total SGCN: 1: 15 2: 13 3:

Class	<i>Actinopterygii</i> (Ray-finned Fishes)	SGCN Category
Species: <i>Alosa pseudoharengus</i> (Alewife)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Increased flooding during the spring can limit upstream swimming ability. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Species: <i>Alosa sapidissima</i> (American Shad)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Increased flooding during the spring can limit upstream swimming ability. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Species: <i>Salmo salar</i> (Atlantic Salmon)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Increased flooding in the spring could effect intra-gravel egg development and fry emergence. Preserving riparian buffer zones would protect streams from high spring run off.		
Species: <i>Acipenser oxyrinchus</i> (Atlantic Sturgeon)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Increased flooding can lead to increased runoff and nonpoint source pollution and sedimentation. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Species: <i>Alosa aestivalis</i> (Blueback Herring)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Increased flooding during the spring can limit upstream swimming ability. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Species: <i>Osmerus mordax</i> (Rainbow Smelt)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Increased flooding during the spring can limit upstream swimming ability. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Species: <i>Acipenser brevirostrum</i> (Shortnose Sturgeon)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Increased flooding can lead to increased runoff, non-point source pollution, and sedimentation. Preserving or improving stream buffers could help mitigate high velocity runoff.		
Class	<i>Aves</i> (Birds)	SGCN Category
Species: <i>Chlidonias niger</i> (Black Tern)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Flash flooding and torrential rains can cause nest or colony failure, potentially resulting in no reproduction at that site that year.		
Species: <i>Gallinula galeata</i> (Common Gallinule)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Flash flooding and torrential rains can cause nest failure.		
Species: <i>Ixobrychus exilis</i> (Least Bittern)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Flash flooding and torrential rains can cause nest failure.		

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Class	Aves (Birds)	SGCN Category
Species: <i>Sternula antillarum</i> (Least Tern)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Nesting habitat loss due to beach erosion may be mitigated through environmental review recommendations.		
Species: <i>Tringa flavipes</i> (Lesser Yellowlegs)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Loss of coastal feeding and roosting habitats due to flooding and erosion. Some impacts may be minimized through environmental review recommendations.		
Species: <i>Ammodramus nelsoni</i> (Nelson's Sparrow)		2
Severity: Moderate Severity	Actionability: Highly actionable	
Notes: Reduced nesting success		
Species: <i>Charadrius melodus</i> (Piping Plover)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Storms and flooding will cause beach erosion and loss of nesting habitat. Some impacts may be minimized through the environmental review process.		
Species: <i>Calidris canutus rufa</i> (Red Knot)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effects from beach erosion may be mitigated through beach nourishment from dredging projects.		
Species: <i>Arenaria interpres</i> (Ruddy Turnstone)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Beach erosion may limit the number of roosting/feeding areas in southern Maine. Impacts may be mitigated through environmental permit review process.		
Species: <i>Ammodramus caudacutus</i> (Saltmarsh Sparrow)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Increasing intensity of summer rain storms.		
Species: <i>Calidris alba</i> (Sanderling)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Habitat loss from beach erosion may be minimized through beach management programs and environmental permit review. Beach nourishment can minimize short term impacts from habitat loss.		
Species: <i>Cistothorus platensis</i> (Sedge Wren)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Torrential rains can cause nest failure. Every nesting pair is vital.		
Species: <i>Tringa solitaria</i> (Solitary Sandpiper)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Loss of inland marsh habitat due to flooding; could be mitigated with water level control and protection of upland buffers through environmental permit review.		
Species: <i>Tachycineta bicolor</i> (Tree Swallow)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: If climate change brings cooler wetter spring and summers in NE, nest success will decline		
Species: <i>Coturnicops noveboracensis</i> (Yellow Rail)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Flash flooding and torrential rains can cause nest failure.		

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Class	<i>Insecta</i> (Insects)	SGCN Category
Species: <i>Lycaena dorcas claytoni</i> (Clayton's Copper)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Flooding by storms (actionable with difficulty), beaver impoundments (highly actionable), etc can drown eggs/larvae and host plants		
Species: <i>Cicindela marginipennis</i> (Cobblestone Tiger Beetle)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Very severe floods could damage or destroy habitat on the single river where this beetle occurs in ME		
Species: <i>Cicindela marginata</i> (Salt Marsh Tiger Beetle)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Major storm events with flooding/waves could damage habitat		
Species: <i>Cicindela ancocisconensis</i> (White Mountain Tiger Beetle)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Very severe floods could damage or destroy habitat on rivers where this beetle occurs		
Class	<i>Mammalia</i> (Mammals)	SGCN Category
Species: <i>Microtus pennsylvanicus shattucki</i> (Penobscot Meadow Vole)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Climate change will likely include increased storm severity and sea level rise. Since the Penobscot Meadow Vole is mainly found on islands, they may be vulnerable to severe weather events.		
Class	<i>Merostomata</i> (Horseshoe Crabs And Sea Scorpions)	SGCN Category
Species: <i>Limulus polyphemus</i> (Horseshoe Crab)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Severe storms coincident with mating and egg laying has resulted in mass strandings and loss of eggs washed away in surf. Likelihood is low and unpredictable so actionability is low.		

Habitats Associated With This Stressor:

Macrogroup Coastal Grassland & Shrubland

Habitat System Name: Northern Atlantic Coastal Plain Dune and Maritime Grassland

Notes: Severe storms may alter beach and dune dynamics

Habitat System Name: Northern Atlantic Coastal Plain Sandy Beach

Notes: Severe storms may alter beach and dune dynamics

Macrogroup Intertidal Mollusc Reefs

Habitat System Name: Gastropod Reef

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Habitat System Name: Mussel Reef

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Habitat System Name: Oyster Reef

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Macrogroup Intertidal Mudflat

Habitat System Name: Freshwater Tidal Marsh

Notes: Leads to more high-nutrient run-off which may cause harmful algal blooms and enhance coastal acidification

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Macrogroup Intertidal Mudflat

Habitat System Name: Non-Vascular Mudflat

Notes: Leads to more high-nutrient run-off which may cause harmful algal blooms and enhance coastal acidification

Habitat System Name: Submerged Aquatic Vegetation

Notes: Leads to more high-nutrient run-off which may cause harmful algal blooms and enhance coastal acidification

Macrogroup Intertidal Sandy Shore

Habitat System Name: Sand Beach

Notes: Causes erosion of these habitats

Habitat System Name: Sand Flat

Notes: Causes erosion of these habitats

Habitat System Name: Submerged Aquatic Vegetation

Notes: Causes erosion of these habitats

Macrogroup Intertidal Tidal Marsh (peat-forming)

Habitat System Name: Acadian Coastal Salt Marsh

Notes: significant storm events may alter tidal marsh structure and composition

Habitat System Name: Coastal Plain Tidal Marsh

Notes: significant storm events may alter tidal marsh structure and composition

Macrogroup Intertidal Water Column

Habitat System Name: Confined Channel

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Habitat System Name: Embayment

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Habitat System Name: Exposed Shore

Notes: Increased run-off could contribute to poor water quality, harmful algal blooms, etc.

Macrogroup Lakes and Ponds

Habitat System Name: Vernal Pool

Notes: Hurricane Irene is an example

Macrogroup Northeastern Floodplain Forest

Habitat System Name: Laurentian-Acadian Floodplain Systems

Notes: Potential change in hydrology, sedimentation, and ultimately vegetation as a result of climate change

Macrogroup Rivers and Streams

Habitat System Name: Ephemeral

Notes: Hurricane Irene is an example

Habitat System Name: Small River

Notes: Hurricane Irene is an example

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The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.